

CONNECTING VOWELS IN EPITHETS OF LATIN ORIGIN¹

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Latin compound words are commonly formed with the letter *i* as a connecting vowel. Certain other methods of forming compound words also occur in Latin, but are of rather limited application or usage.

Article 73 note 2 of the International Code of Botanical Nomenclature calls for uniformity in the formation of names by stating that:

“The use of a wrong connecting vowel or vowels (or the omission of a connecting vowel) in a name or an epithet is treated as an orthographic error”.

And the two examples given are *opuntiaeflora* corrected to *opuntiiiflora*, and *napeaefolia* corrected to *napaeifolia*.

Some exceptions are given under Recommendation 73G. Before a vowel, a final vowel is normally elided: *multiangulus*, not *multi-angulus*. The ablative ending may be retained as in *atropurpureus* and *fuscovenetus*. Forms revealing etymological distinctions may also be retained, such as *caricaeformis* from *Carica* versus *cariciformis* from *Carex*.

Other examples of the intent of the Rules can be culled from various parts of the text of the Code. These are:

acutiflorus, *angustifolius*, *biflorum*, *brevifolia*, *brevipedunculata*, *cruciformis*, *fragiferum*, *gossipiifolia*, *grandiflora*, *hieraciifolium*, *latifolia*, *longisiliquum*, *menthifolius*, *multicaulis*, *multicolor*, *multiflorum*, *napifolius*, *neriifolia*, *rumicifolia*, *salicifolia*, *salviifolius*, *sorediiformis*, *tricolor*, *tricuspis*, *trinervis*.

Two epithets used in the Rules appear to be in need of correction. *Fimbricalyx*, Art. 42, should read: *fimbriicalyx*, compare: *sorediiformis*. *Contortuplicatus*, Rec. 21A, is not only contrary to Art. 73, it is also a very old word, the classical form of which is *contortiplicatus*.

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The full implication of Art. 73 may have escaped the attention of most botanists. A rapid sampling of the Kew Index, the Gray Index or the indices of various floras from a shelf at hand reveals that they all contain a fair number of epithets contrary to Art. 73. There is no intention on my part to carry out a full survey of all such names that need to be corrected under Art. 73; the task would be stupendous. However in skimming through M. L. Fernald, Gray's Manual of Botany, ed. 8, 1950, I have noticed that the following corrections are needed therein:

NAME	CORRECTION
<i>Acalypha ostryaefolia</i>	<i>A. ostryifolia</i>
<i>Agastache scrophulariaefolia</i>	<i>A. scrophulariifolia</i>
<i>Aristida longespica</i>	<i>A. longispica</i>
<i>Aster dumosus</i>	
var. <i>subulaefolius</i>	var. <i>subulifolius</i>
<i>Athyrium thelypteroides</i>	<i>A. thelypteridoides</i>
<i>Beckmannia erucaeformis</i>	<i>B. eruciformis</i>
<i>Betula caerulea-grandis</i>	<i>B. caeruleigrandis</i>
<i>Bidens heterodoxa</i>	
var. <i>monardaefolia</i>	var. <i>monardifolia</i>
<i>Botrychium matricariaefolium</i>	<i>B. matricariifolium</i>
<i>Botrychium ternatum</i>	
var. <i>rutaefolium</i>	var. <i>rutifolium</i>
<i>Bromus brizaeformis</i>	<i>B. briziformis</i>
<i>Carex livida</i>	
var. <i>rufinaeformis</i>	var. <i>rufiniformis</i>
<i>Cerastium longepedunculatum</i>	<i>C. longipedunculatum</i>
<i>Comptonia peregrina</i>	
var. <i>asplenifolia</i>	var. <i>aspleniifolia</i>
<i>Coreopsis delphinifolia</i>	<i>C. delphiniifolia</i>
<i>Cyperus flavescens</i>	
var. <i>poaeformis</i>	var. <i>poiiformis</i>
<i>Erectites hieracifolia</i>	<i>E. hieraciifolia</i>
<i>Eupatorium urticaefolium</i>	<i>E. urticifolium</i>
<i>Eupatorium verbenae-folium</i>	<i>E. verbenifolium</i>
<i>Gentiana Catesbaei</i>	
var. <i>nummulariaefolia</i>	var. <i>nummulariifolia</i>
<i>Helianthus grosseserratus</i>	<i>H. grossiserratus</i>
<i>Helianthus trachelifolius</i>	<i>H. tracheliifolius</i>
<i>Iva xanthifolia</i>	<i>Iva xanthiifolia</i>
<i>Kalmia polifolia</i>	<i>K. poliifolia</i>
<i>Kosteletzkya virginica</i>	
var. <i>altheaefolia</i>	var. <i>altheifolia</i>

<i>Lindera melissaefolium</i>	<i>L. melissifolium</i>
<i>Liparis lilifolia</i>	<i>L. liliifolia</i>
<i>Lycopodium sabinaefolium</i>	<i>L. sabinifolium</i>
<i>Lyonia ligustrina</i>	
var. <i>capreaefolia</i>	var. <i>capreifolia</i>
<i>Monarda fistulosa</i>	
var. <i>menthaefolia</i>	var. <i>menthifolia</i>
<i>Monarda menthaefolia</i>	<i>M. menthifolia</i>
<i>Myrica asplenifolia</i>	<i>M. aspleniifolia</i>
<i>Osmunda cinnamomea</i>	
f. <i>cornucopiaefolia</i>	f. <i>cornucopiifolia</i>
<i>Paspalum longepedunculatum</i>	<i>P. longipedunculatum</i>
<i>Paspalum setaceum</i>	
var. <i>longepedunculatum</i>	var. <i>longipedunculatum</i>
<i>Penstemon tubaeflorus</i>	<i>P. tubiflorus</i>
<i>Polygonum pensylvanicum</i>	
var. <i>rosaeflorum</i>	var. <i>rosiflorum</i>
<i>Potamogeton spathulaeformis</i>	<i>P. spathuliformis</i>
<i>Quercus falcata</i>	
var. <i>pagodaefolia</i>	var. <i>pagodifolia</i>
<i>Quercus macrocarpa</i>	
f. <i>oliviformis</i>	f. <i>oliviformis</i>
<i>Quercus pagodaefolia</i>	<i>Q. pagodifolia</i>
<i>Ranunculus bulbosus</i>	
var. <i>valdepubens</i>	var. <i>valdipubens</i>
<i>Ranunculus sicaeformis</i>	<i>R. siciformis</i>
<i>Salvia lanceaefolia</i>	<i>S. lanceifolia</i>
<i>Sambucus pubens</i>	
f. <i>rosaeflora</i>	f. <i>rosiflora</i>
<i>Smilax Bona-Nox</i>	
var. <i>hederaefolia</i>	var. <i>hederifolia</i>
<i>Sium cicutaefolium</i>	<i>S. cicutifolium</i>
<i>Tragia nepetaefolia</i>	<i>T. nepetifolia</i>
<i>Valerianella chenopodifolia</i>	<i>V. chenopodiifolia</i>
<i>Veronica hederaefolia</i>	<i>V. hederifolia</i>
<i>Viola melissaefolia</i>	<i>V. melissifolia</i>
<i>Zenobia cassinefolia</i>	<i>Z. cassinifolia</i>

Corrections of connecting vowels cannot be done indiscriminately and I hope I have not made too many unjustified corrections. A few examples of special cases may help the reader recognize some of the unusual compounds that should be allowed to stand.

Millefolium: this is an old classical word already in use by the third century A.D. and should be allowed to stand

undisturbed. In compounds the forms *mille-* and *milli-* are equally acceptable. E.g., *milli-formis*, *millepeda*, *millegrana*. Similarly, with *pedemontanus*, *Vincetoxicum*, *Cerefolium*, *graveolens*, *suaveolens*, etc.

Noveboracus: the latin form of York is *Eboracus*, hence the elision of a final vowel and the omission of a connecting vowel.

Anethiodora: a better form would be *anethodora*, but the paragraph on the elision of a final vowel before an initial vowel is only a recommendation (73G), hence a correction is not compulsory. Note also: *asplenioides*, *brevi-aristatus*.

Antecedens: the preposition *ante* may either be used unmodified or it may be changed to *anti*. There is ample classical usage to justify both forms. Other prepositions and adverbs are also commonly used in compounds either unmodified or without connecting vowels; e.g.: *semper-virens*, *interruptus*, *retroflexus*, *praematurus*. Similarly with numerals: *quinquefolius*.

Spica-venti: this and other similar epithets are termed "pseudo-compounds" in the Rules (73G), and are exempt from the provisions of Art. 73 note 2. They are also exempt from the provisions for the elimination of hyphens in compound words. Otherwise, hyphens should be eliminated in compounds.

Muscaetoxicum: appears to fall in the category of "pseudo-compounds" and should be allowed to stand unchanged.

While reading Gray's Manual for the purpose of this survey, I paid attention only to connecting vowels in latin compounds. Yet I could not help noticing that a great many more orthographic errors should be eliminated. The most frequently needed correction is the lack of an additional *i* in certain genitives: *Helianthus Maximiliani* (for *Maximilianii*). Here is a sampling of certain other types of correction also needed: *Habenaria blephariglottis* (*blepharidiglottis*); *Panicum calliphyllum* (*callophyllum*); *Acer Pseudo-Platanus* (*pseudoplatanus*); *Franseria acanthicarpa*

(*acanthocarpa*); *Veronica Anagallis-aquatica* f. *anagalliformis* (*anagallidiformis*).

As it presently stands, Art. 73 is a rather mild attempt at spelling-standardization. Yet botanists seem pretty lackadaisical about its observance. Under the circumstances it hardly seems worth while to propose still further spelling-standardizations. Yet I would strongly support an Article 73 that would eliminate such variants as *caeruleus*, *ceruleus* and *coeruleus*; *littoralis* and *litoralis*; *alleggheniensis* and *allegghaniensis*; *pensylvanicus*, *pennsylvanicus* and *pensilvanicus*, and most of all, the multitude of alternate forms of *kamtschaticus* and *alaskensis*. The latter are especially vexing.

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ANOTHER TRIBULUS ADVENTIVE IN THE NEW WORLD

Tribulus L. (Zygophyllaceae) is an Old World genus of perhaps several dozen species, two of which are well-known adventives in the Americas. *Tribulus cistoides* L. is a common weed in tropical Mexico and the Carribbean region, and *T. terrestris* L. a ubiquitous pest in the warm temperate areas of both North and South America. While examining specimens of this genus from South America, I discovered a third adventive, *T. alatus* Del., represented by the following collections from western Peru:

DEPT. PIURA: Pariñas Valley, *Haught F-143* (F), 206 (GH); Talara, *Johnston 3513* (F, GH); 1 km W Talara, *Beetle 26201* (UC). DEPT. ICA: between Cocharcas and Quilque, *Ferreyra 580* (US). Information on the labels of the Beetle and Johnston collections indicate that the plant was not common where found, but *Haught F-143* states that the plant was "abundant after rains, especially north of Pariñas Valley."

This desert-dwelling annual from North Africa and the Middle East to India is easily recognized by its winged